REMARKS

Applicants have thoroughly considered the Examiner's remarks in the June 25, 2009 Office action and have amended the application to more clearly set forth aspects of the invention. Claims 1, 3, 5–7, 9–14, 17–20, 22–24, 26–28, 30–35, 37 and 40 are presented in the application for further examination. Claims 1, 9, 11, 12, 14, 24, 30–32 and 37 have been amended by this Amendment E. Claims 8 and 29 have been canceled by this Amendment E. Reconsideration of the application claims as amended and in view of the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 13, 24 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pub. No. 2002/0120711 (hereinafter "Bantz") in view of U.S. Pub. No. 2003/0100326 (hereinafter "Grube"), in further view of U.S. Patent No. 6,169,897 (hereinafter "Kariya"), and in further view of U.S. 2003/0101190 (hereinafter "Horvitz"). Applicants respectfully disagree. None of the cited references, alone or in combination, disclose or suggest each and every element of the claims.

Users often desire to be alerted to time-sensitive information on a variety of topics, such as stock prices, breaking news, traffic conditions, weather conditions and other items for which up-to-date information is needed. (*See* Specification, [0002]). A user's expressed interest in receiving electronic alerts for time-sensitive information is generally called a notification subscription. *Id.* These "alert" subscriptions are made between the *user* desiring the time-sensitive information and the *content provider* that provides the information. *Id.* For example, if a user wants to receive alerts regarding traffic conditions and alerts regarding stock prices, the user would establish a subscription with a traffic conditions content provider and establish another subscription with the stock price content provider. Since different alert notifications systems can have different protocols particular to the individual, the delivery and management of alerts and the alert notifications subscriptions becomes complicated for users and the content providers. *Id.* Advantageously, Applicants permit a generalized notification mechanism using an extensible messaging framework that simplifies the delivery and management of alerts and alert notifications subscriptions for both users and content providers, as the users and content providers no longer need to tailor their respective systems and/or applications to understand a

number of different protocols – the notification mechanism provides a single extensible messaging framework. (*See* Specification, [0005]–[0013]).

Amended independent claim 1 is directed to a method of managing notifications in a web-based notifications system, with the notifications system being configured to provide notifications provided by one or more content providers to a user via a data communication network, where the notifications contain content relating to one or more topics. As amended, claim 1 incorporates the subject matter of dependent claim 8. The method comprises, among other things, executing a **web service accessible via a hypertext transport protocol** (HTTP) on a **web server**, with the web service being responsive to notifications requests. The notifications request are structured according to an extensible messaging framework comprising a Simple Object Access Protocol (SOAP). The method further comprises receiving, at the web service, a notifications request from a content provider – the received notifications request specifies a selected notification management function and is structured according to the extensible messaging framework, "said received notifications request comprising a SOAP request". Amended claim 1 further recites, among other things:

> extracting request information from the received notifications request, said request information including at least a **content provider identifier**, a **user identifier to identify the user**, and a plurality of topic identifiers, each said topic identifier being associated with a corresponding **relative uniform resource locator** (URL), wherein the relative URL **is relative to the web domain of the content provider**, such that the web domain of the content provider and the relative URL indicate an absolute **URL in the form "//<web domain of content provider><relative URL>"**, wherein said corresponding relative URL corresponds to one or more topics;
> executing the selected notification management function based on the extracted request information for each of the plurality of topic identifiers; and
> sending a response object to the content provider **via HTTP**, said response object being structured according to the extensible messaging framework, said response object containing information relating to either success or failure for the executed selected notification management function including the performed function for each of the plurality of topic identifiers.

Aspects of the claimed method permit, among other things, receiving at a web service a notifications request from a content provider **via HTTP** and extracting the request information from the received notifications requests which includes a content provider identifier, a user identifier that identifies the user, and topic identifiers. Each topic identifier is associated with a corresponding relative uniform resource locator ("URL") that is relative to the web domain of the

13

content provider. A response object containing success/failure information is then sent **via HTTP** to the content provider. Advantageously, Applicant permit content providers to send notifications request in a structure specified by extensible messaging framework via HTTP, simplifying the delivery and management of notifications for content providers.

Applicants submit that the cited references fail to disclose every element of amended independent claim 1. The Examiner argues that Bantz discloses the method of independent claim 1, but admits that Bantz fails to disclose sending a response object to the content provider, said response object being structured according to the extensible message framework and containing information relative to success or failure for the executed selected notification management function. The Examiner instead relies on Grube as disclosing these elements. The Examiner further admits that Bantz and Grube in combination fail to disclose a URL being associated with a topic identifier, but instead relies on Kariya as disclosing these elements. The Examiner additionally admits that Bantz, Grube, and Kariya fails to disclose using the SOAP protocol and SOAP requests and relies on Horvitz as disclosing these elements.

Applicants submit that Bantz fails to disclose the elements argued by the Examiner. Amended independent claim 1 recites, among other things, "executing a **web service on a web server**, said web service responsive to **notifications requests** structured according to an **extensible messaging framework** . . . said web service being accessible via a hypertext transport protocol (HTTP)", while the portion of Bantz cited by the Examiner discloses nothing more than a computer server. (Bantz, computer 100). Bantz *merely* discloses an *intranet* computer server (*see* Bantz, Fig. 1, element 100 and 110) that includes application software, connects to one or more client systems, manages the client systems, send/receives network data from the client systems. (*See* Bantz, [0026]–[0028]). It is unclear to Applicant how the mere disclosure of a intranet computer server suggests "a **web service** on a **web server**" as recited in amended claim 1, as Bantz fails to *even* disclose a web server and therefore cannot disclose "executing a web service on a web server". Since Bantz fails to disclose these elements, Bantz therefore cannot disclose "said web service is responsive to notifications requests structured according to an extensible messaging framework . . . said web service being accessible via a hypertext transport protocol (HTTP)" or "receiving, via HTTP at the **web service**, a notifications request from a content provider, said received notifications request specifying a selected notification management function, said received notifications request being structured according

to the extensible messaging framework, said received notifications request comprising a SOAP request" as recited in amended claim 1.

The Examiner further argues that Bantz discloses extracting request information from the received notifications request. Amended independent claim 1 recites "extracting request information from the received notifications request, said request information including at least a content provider identifier, a user identifier to identify the user, and a plurality of topic identifiers, each said topic identifier being associated with a corresponding relative uniform resource locator (URL) . . . ". Contrary to the Examiner's argument, Bantz fails to disclose a content provider identifier. (June 25 Office action, paragraphs 9–10, page 11). Paragraph [0037] in Bantz indicates that a subscription manager 703 is used to update a subscriptions database or update an existing subscription. According to Bantz, a subscription includes a "category, recipient-address" pair, where the recipient-address is the "specific address of the subscriber". *Id.* It is unclear to Applicants how this recipient address discloses a content provider identifier as suggested by the Examiner, as the notifications system of amended independent claim 1 is configured to "provide notifications **to a user** via a data communication network, said notifications containing content **provided by one or more content providers**, said content relating to one or more topics". Furthermore, amended claim 1 recites "a content provider identifier" and "a user identifier to identify the user", but the Examiner suggests that Bantz's "recipient-address" in paragraph [0037] discloses these elements as well. Applicants respectfully request clarification from the Examiner explaining how the "recipient-address" in Bantz discloses a content provider identifier while simultaneously disclosing a user identifier. Bantz additionally fails to disclose a plurality of topic identifiers at paragraph [0037], but instead *merely* discloses that "the category field may be partially-specified, so that multiple message categories can be designated in a single subscription." For example, if the categories in Bantz include "business news", "sporting news", and "political news", a user can specify "news" to receive messages relating to each of the three categories. (*See* Bantz, [0037]). In other words, Bantz *merely* permits a user to use a "wildcard"-type system to specify more than one category, while amended claim 1 recites "a **plurality** of topic identifiers". As a result, Bantz fails to disclose a plurality of topic identifiers as recited in amended claim 1.

The Examiner argues that Kariya discloses associating a URL with a topic identifier, elements not disclosed by Bantz. According to the Examiner, Kariya discloses at col. 4, lines

15

28–42 that URLs are related to topics in specific regions. The Examiner fails to see how "any URL would fail to be 'relative to the web domain of the content provider, wherein corresponding relative URL corresponds to one or more topics. (June 25, 2009 Office action, paragraph 12, pages 11–12). Amended independent claim 1 recites, among other things, "each said topic identifier being associated with a corresponding relative uniform resource locator (URL)". Applicants submit that amended claim 1 does not recite "any URL" as suggested by the Examiner, but instead recites that each topic identifier is **associated** with a corresponding relative URL. Amended claim 1 further recites "wherein the **relative URL** is relative to the web domain of the content provider, such that the web domain of the content provider and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", wherein said corresponding **relative URL** corresponds to one or more topics". Contrary to the Examiner's argument, Kariya fails to disclose topic identifiers associated with corresponding relative URLs as recited in amended claim 1, but instead *merely* discloses creating a web page that contains a table of URLs of home pages where topics related to some specific geographical region. (*See* Kariya, col. 4, lines 28–42). It remains unclear to Applicants how a created web page displaying URL links to other web pages discloses "a plurality of topic identifiers, each said topic identifier being associated with a corresponding relative uniform resource locator (URL)" or any other elements of amended claim 1. Applicants respectfully submit that Kariya fails to disclose those elements argued by the Examiner. As a result, the combination of Bantz and Kariya cannot disclose "executing the selected notification management function based on the extracted request information for each of the plurality of topic identifiers" as recited in amended independent claim 1.

The Examiner argues that Grube discloses sending an acknowledgement to a request, and that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosures of Bantz with Grube in order to allow a user to retry if a request is not acknowledged. Applicants again respectfully disagree, as Grube instead discloses an invention for sharing location and route information between communication units. (*See* Grube, Abstract). Grube describes its invention as methods for a communication unit engaged in a group dispatch voice call to participate in a location sharing service. (*See* Grube, [0009]–[0012]). In other words, Grube is directed to determining and tracking the *location* of a communication unit, such as on an electronically displayed map. (*See* Grube, Fig. 2). Applicants submit that it would not

16

have been obvious to one skilled in the arts of Bantz or of the present invention to incorporate disclosures or suggestions from an invention for sharing location and routing information between communication units when designing a web-based notifications system. Applicants respectfully disagree that Grube is an analogous art to Bantz or to the present claims. Applicants respectfully request a reference citation disclosing or suggesting this combination.

The Examiner additionally argues that Horvitz discloses using SOAP in a notification management environment, and that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bantz, Grube, and Kariya with the disclosures of Horvitz in order to allow easier communication behind proxies and firewalls. Applicants submit that Horvitz fails to cure the deficiencies identified above and again respectfully request a reference citation disclosing or suggesting the suggested combination of references.

In view of the foregoing, Applicants submit that amended independent claim 1 and its dependent claims 3, 5, 7–9, and 11–13 are allowable for at least the reasons given above and the rejection of claims 1, 3, 5, 7–9, and 11–13 under 35 U.S.C. § 103(a) should be withdrawn.

Amended independent claim 24 is directed to a web-based system for processing notifications containing content provided by one or more content providers to subscribed users, with the content relating to one or more topics. The system comprises, among other things, a computing device to "execute a **web service** on a **web server**, said web service responsive to notifications requests structured according to an extensible messaging framework". The extensible messaging framework comprises a Simple Object Access Protocol (SOAP) and the web service is accessible via a hypertext transport protocol (HTTP). The computing device is configured to receive notifications requests from a plurality of content providers via the data communication network, with the received notifications requests specifying a selected notification management function related to managing subscriptions. The system further comprises:

> a computer-readable storage medium storing computer-executable instructions to be executed on the computing device to extract request information from the plurality of notifications requests, said request information including a content provider identifier, a user identifier to identify the user, and **a topic identifier associated with the notifications request**, said topic identifier being associated with **a corresponding relative uniform resource locator (URL)**, wherein the relative URL is relative to the web domain of the content provider, such that the web domain of the content provider

17

and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", wherein said corresponding relative URL corresponds to one or more topics, and to perform the selected notification management function based on the extracted request information, wherein the selected notification management function is related to the management of subscriptions associated with the content provider corresponding to the content provider identifier and the topic identifier; and

        a memory associated with the computing device to store the extracted request information in connection with the selected notification management function.

Similar to amended independent claim 1, aspects of the claimed system permit, among other things, receiving at a web service a notifications request from a content provider **via HTTP** and extracting the request information from the received notifications requests which includes a content provider identifier, a user identifier that identifies the user, and topic identifiers. Each topic identifier is associated with a corresponding relative uniform resource locator ("URL") that is relative to the web domain of the content provider. Advantageously, Applicants permit content providers to send notifications request in a structure specified by extensible messaging framework via HTTP, simplifying the delivery and management of notifications for content providers.

        Applicants respectfully disagree that the cited references disclose or suggest such a system, for at least the same reasons given above for the allowance of amended independent claim 1. For example, amended claim 24 recites, among other things, " a computing device to execute a web service on a web server, said web service responsive to notifications requests structured according to an extensible messaging framework". Bantz, however, fails to disclose a web service or a web server when describing its system. (*See* Bantz, [0026]–[0028]). Amended claim 24 additionally recites " a computer-readable storage medium storing computer-executable instructions to be executed on the computing device to extract request information from the plurality of notifications requests, said request information including a content provider identifier, a user identifier to identify the user, and a topic identifier associated with the notifications request, said topic identifier being associated with a corresponding relative uniform resource locator (URL), wherein the relative URL is relative to the web domain of the content provider". Contrary to the Examiner's argument, Bantz fails to disclose a content provider identifier. (June 25 Office action, paragraphs 9–10, page 11). Paragraph [0037] in Bantz indicates that a subscription manager 703 is used to update a subscriptions database or update an existing subscription. According to Bantz, a subscription includes a "category, recipient-

address" pair, where the recipient-address is the "specific address of the subscriber". *Id.* It is unclear to Applicants how this recipient address discloses a content provider identifier as suggested by the Examiner, as the notifications system of amended independent claim 1 is configured to "provide notifications **to a user** via a data communication network, said notifications containing content **provided by one or more content providers**, said content relating to one or more topics". Furthermore, amended claim 1 recites "a content provider identifier" and "a user identifier to identify the user", but the Examiner suggests that Bantz's "recipient-address" in paragraph [0037] discloses these elements as well. Applicants respectfully request clarification from the Examiner explaining how the "recipient-address" in Bantz discloses a content provider identifier while simultaneously disclosing a user identifier. Bantz fails to disclose topic identifiers as recited in amended claim 24, but instead discloses a "wildcard"-type means of specifying a category of interest. (*See* Bantz, [0037]). Kariya fails to disclose topic identifiers associated with corresponding relative URLs, but instead discloses creating a web page for displaying URL links to other web pages. (*See* Kariya, col. 4, lines 28–42). Applicants again submit that Grube and Horvitz fail to cure the deficiencies of Bantz and Kariya and therefore the combination of cited references fail to disclose each and every element of the claims.

In view of the foregoing, Applicants respectfully submit that amended independent claim 24 and its dependent claims 26–31 are allowable for at least the reasons given above. As such, the rejection of claims 24 and 26–31 under 35 U.S.C. § 103(a) should be withdrawn.

Amended independent claim 37 is directed to a web service for managing notifications in a web-based notifications system, where the notifications system is configured to provide notifications to a user via a data communication network. The notifications contain content provided by one or more content providers and the content relates to one or more topics. The web service comprises, among other things, a computing device to execute the web service on a web server, with the web service being accessible via a hypertext transport protocol (HTTP). The computing device is configured to receive notifications requests structured according to an extensible messaging framework from one or more content providers via the data communication network. The web service further comprises a computer-readable storage medium storing computer-executable instructions to be executed on the computing device to:

provide the extensible messaging framework to the content providers to create requests, said requests when structured according to the messaging framework each specify a selected notification management function and contain request information, said request information for each of the requests including a content provider identifier and a **plurality of topic identifiers associated therewith**, each said topic identifier being associated with a **corresponding relative uniform resource locator** (URL), wherein the relative URL is relative to the web domain of the content provider, such that the web domain of the content provider and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", wherein said corresponding relative URL corresponds to one or more topics;

extract the request information for each of the requests, said request information including a content provider identifier, a topic identifier, and a user identifier associated with the request, said user identifier identifying the user;

perform the selected notification management function based on the extracted request information; and

create a response object in response to said received request, said response object each being structured according to the messaging framework and containing information relating to either success or failure of the performed notification management functions for each of the plurality of topic identifiers.

Similar to amended independent claims 1 and 24, aspects of the claimed system permit, among other things, receiving at a web service a notifications request from a content provider **via HTTP** and extracting the request information from the received notifications requests which includes a content provider identifier, a user identifier that identifies the user, and topic identifiers. Each topic identifier is associated with a corresponding relative uniform resource locator ("URL") that is relative to the web domain of the content provider. A response object containing success/failure information is then sent **via HTTP** to the content provider. Advantageously, Applicants permit content providers to send notifications request in a structure specified by extensible messaging framework via HTTP, simplifying the delivery and management of notifications for content providers.

Applicants respectfully disagree that the cited references disclose or suggest such a web service, for at least the same reasons given above for the allowance of amended independent claims 1 and 24. For example, amended claim 37 recites, among other things, "a computing device to execute a web service on a web server . . . and configured to receive notifications requests structured according to an extensible messaging framework". Bantz, however, fails to disclose a web service or a web server when describing its system. (*See* Bantz, [0026]–[0028]). Amended claim 37 additionally recites "said request information for each of the requests

including a content provider identifier and **a plurality of topic identifiers** associated therewith, each said topic identifier being associated with a corresponding relative uniform resource locator (URL)". Bantz fails to disclose a plurality of topic identifiers as recited in amended claim 37, but instead discloses a "wildcard"-type means of specifying a category of interest. (*See* Bantz, [0037]). Furthermore, amended claim 37 recites "a content provider identifier" and "a user identifier to identify the user", but the Examiner suggests that Bantz's "recipient-address" in paragraph [0037] discloses these elements. Applicants respectfully request clarification from the Examiner explaining how the "recipient-address" in Bantz discloses a content provider identifier while simultaneously disclosing a user identifier. Kariya fails to disclose "a plurality of topic identifiers associated therewith, each said topic identifier being **associated with** a corresponding relative uniform resource locator (URL), wherein the relative URL is relative to the web domain of the content provider, such that the web domain of the content provider and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", but instead discloses creating a web page for displaying URL links to other web pages. (*See* Kariya, col. 4, lines 28–42). Applicants again submit that Grube and Horvitz fail to cure the deficiencies of Bantz and Kariya and therefore the combination of cited references fail to disclose each and every element of the claims.

In view of the foregoing, Applicants respectfully submit that amended independent claim 37 and its dependent claim 40 are allowable for at least the reasons given above. As such, the rejection of claims 37 and 40 under 35 U.S.C. § 103(a) should be withdrawn.

Claim 10

Dependent claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bantz, Grube, Kariya, and further in view of U.S. Patent No. 6,763,384 (hereinafter "Gupta"). Applicants respectfully disagree and submit that dependent claim 10 is allowable for at least the same essential reasons given for the allowance of amended independent claim 1, from which claim 10 depends. As such, rejection of dependent claim 10 under 35 U.S.C. § 103(a) should be withdrawn.

Claims 14, 17–23, and 32–36

Claims 14, 17–23, and 32–36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bantz, Grube, Kariya, in further view of Gupta, and further in view of U.S. Pub. No. 2003/0223449 (hereinafter "Hill"). Applicants respectfully disagree. None of the cited references, alone or in combination, disclose or suggest each and every element of the rejected claims.

Amended independent claim 14 is directed to a method of managing notifications in a web-based notifications system. The notifications system is configured to provide notifications to a user via a data communication network, where the notifications contain content relating to one or more topics provided by one or more content providers. The method comprises, among other things, executing a web service on a web server, said web service responsive to requests structured according to an extensible messaging framework comprising a Simple Object Access Protocol (SOAP). The web service is accessible via a hypertext transport protocol (HTTP). The method further comprises receiving, at the web service, requests from a plurality of content provider and extracting request information from each of the plurality of received requests, "said request information including at least a content provider identifier, a topic identifier, a selected notification management function related to managing subscriptions to be performed by the notifications system, and a user identifier to identify the user". Additionally, amended claim 14 recites:

> querying a user profile store for profile information corresponding to each of the user identifiers of the requests, **said profile information including user routing preferences to indicate which one or more user devices should receive the notifications**;
> querying a messaging service based on the user identifier and based on the presence of a user profile in the user profile store corresponding to each of the user identifiers of the requests for additional routing data for the delivery of notifications, **said additional routing data including an opt-out status**.

Thereafter, the method of amended claim 1 recites determining routing information for a notification based on the profile information and based on the additional routing data for each user identifier and creating a subscription for the users corresponding to the topic identifiers by executing the selected notification management function based on the extracted request information, "wherein the selected notification management function is related to the management of subscriptions associated with the content provider corresponding to the content provider identifier of the request and wherein the subscription for the user includes the

determined routing information corresponding to the user." Similar to amended independent claims 1, 24, and 37 above, Applicants advantageously permit content providers to send notifications requests in a structure specified by extensible messaging framework via HTTP, simplifying the delivery and management of notifications for content providers.

The Examiner argues that independent claim 14 substantially contains the limitations of dependent claim 10 and rejects independent claim 14 for the same reasons given for dependent claim 10. Applicants respectfully disagree that the cited references disclose or suggest the method of amended independent claim 14, for at least the same reasons given above for the allowance of amended independent claim 1 and dependent claim 10. For example, amended independent claim 14 recites, among other things, "executing a web service on a web server", while Bantz fails to disclose a web service or a web server when describing its system. (*See* Bantz, [0026]–[0028]). Bantz fails to disclose topic identifiers as recited in amended claim 24, but instead discloses a "wildcard"-type means of specifying a category of interest. (*See* Bantz, [0037]). Furthermore, amended claim 14 recites "a content provider identifier" and "a user identifier to identify the user", but the Examiner suggests that Bantz's "recipient-address" in paragraph [0037] discloses these elements. Applicants respectfully request clarification from the Examiner explaining how the "recipient-address" in Bantz discloses a content provider identifier while simultaneously disclosing a user identifier. Kariya fails to disclose topic identifiers associated with corresponding relative URLs, but instead discloses creating a web page for displaying URL links to other web pages. (*See* Kariya, col. 4, lines 28–42). Applicants again submit that Grube and Horvitz fail to cure the deficiencies of Bantz and Kariya.

The Examiner argues that Hill discloses querying a messaging service based on the user identifier for additional data to determine use of the messaging service by the user associated with the user identifier and determining routing information based on the profile and the additional data for each user identifier. Applicants respectfully disagree that Hill is an analogous art to the cited references or to the present invention, as Hill instead *merely* discloses an invention for identifying if/when recipients of a group message in a communication system received the message. (Hill, [0007]). Even in combination, however, Hill fails to disclose the elements of amended claim 14. Amended independent claim 14 recites, among other things, "querying a user profile store for profile information corresponding to each of the user identifiers of the requests, said profile information including **user routing preferences** to indicate **which**

23

one or more user devices should receive the notifications" and "querying a messaging service based on the user identifier and based on the presence of a user profile in the user profile store corresponding to each of the user identifiers of the requests for additional routing data for the delivery of notifications, **said additional routing data including an opt-out status**." In the portion cited by the Examiner, Hill instead *merely* discloses that "the server [] checks [] whether a predetermined condition for alternative message status notification is met. If so, [] the server will set a flag to send message status notifications (that would normally go to the *originator* of the group message) to a designated person instead of (or, alternatively, in addition to) to the *originator*." (Hill, [0015]). In other words, the originator of the group message or a designated person receives *status messages* indicating the active/inactive status of the intended recipients, and **not** "user routing preferences to **indicate which one or more user devices** should receive the notifications". Contrary to the Examiner's argument, the cited portion of Hill fails to disclose routing preferences for notifications for the user. Since Hill fails to disclose user routing preferences, Hill cannot disclose "said additional routing data **including an opt-out status**" as recited in amended independent claim 14 and fails to cure the deficiencies of Bantz, Grube, Kariya, and Horvitz as identified above. As such, the combination of cited references fails to disclose every element of amended claim 14 as argued by the Examiner.

In view of the foregoing, Applicants respectfully submit that amended independent claim 14 and its dependent claims 17–23 are allowable for at least the reasons given above. As such, the rejection of claims 14 and 17–23 under 35 U.S.C. § 103(a) should be withdrawn.

Amended independent claim 32 is directed to a web-based system for processing notifications, with the notifications containing content provided by one or more content providers relating to one or more topics. The system comprises, among other things, a computing device to execute a web service on a web server, where the web service is responsive to notifications requests structured according to an extensible messaging framework. The computing device is coupled to a data communication network and configured to receive a notifications request from a content provider via the data communication network. The system further comprises a user profile store associated with the computing device to store profile information representative of a plurality of users, "said profile information including user routing preferences to indicate which **one or more user devices should receive the notifications**". The

system additionally comprises a computer-readable storage medium storing computer-executable instructions to be executed on the computing device to:

> extract request information from the request, said request information including a content provider identifier, a topic identifier, and a user identifier associated with the request, said user identifier identifying the user,
>
> query the user profile store for profile information corresponding to the user identifier,
>
> query a messaging service based on the user identifier and based on the presence of a user profile in the user profile store corresponding to the user identifier of the request for additional routing data, said additional routing data indicating an **opt-out status**,
>
> determine routing information for a notification based on the profile information and the additional routing data, and
>
> create a subscription corresponding to the topic identifier, the user identifier, and the routing path for the notification, wherein the subscribed user associated with the user identifier receives at least one notification containing content provided the content provider via the routing path, the content being related to said subscribed one or more topics associated with the topic identifier, the topic identifier being associated with a corresponding relative uniform resource locator (URL), wherein the **relative** URL is relative to the web domain of the content provider, such that the web domain of the content provider and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", wherein said corresponding relative URL corresponds to one or more topics.

Similar to amended independent claims 1, 14, 24, and 37 aspects of the claimed system permit, among other things, receiving at a web service a notifications request from a content provider **via HTTP** and extracting the request information from the received notifications requests which includes a content provider identifier, a user identifier that identifies the user, and topic identifiers. Each topic identifier is associated with a corresponding relative uniform resource locator ("URL") that is relative to the web domain of the content provider. Advantageously, Applicant permit content providers to send notifications request in a structure specified by extensible messaging framework via HTTP, simplifying the delivery and management of notifications for content providers.

Applicants respectfully disagree that the cited references disclose or suggest such a system, for at least the same reasons given above for the allowance of amended independent claims 1, 14, 24, and 37. For example, amended claim 32 recites, among other things, " a computing device to execute a web service on a web server, said web service responsive to notifications requests structured according to an extensible messaging framework". Bantz, however, fails to disclose a web service or a web server when describing its system. (*See* Bantz,

[0026]–[0028]). Amended claim 37 additionally recites " a computer-readable storage medium storing computer-executable instructions to be executed on the computing device to . . . extract request information from the request, said request information including a content provider identifier, a topic identifier, and a user identifier associate with the request, said user identifier identifying the user . . . the topic identifier being associated with a corresponding relative uniform resource locator (URL), wherein the **relative** URL is relative to the web domain of the content provider". The relative URL "is relative to the web domain of the content provider, such that the web domain of the content provider and the relative URL indicate an absolute URL in the form "//<web domain of content provider><relative URL>", wherein said corresponding relative URL corresponds to one or more topics". Bantz fails to disclose topic identifiers as recited in amended claim 37, but instead discloses a "wildcard"-type means of specifying a category of interest. (*See* Bantz, [0037]). Furthermore, amended claim 32 recites "a content provider identifier" and "a user identifier to identify the user", but the Examiner suggests that Bantz's "recipient-address" in paragraph [0037] discloses these elements. Applicants respectfully request clarification from the Examiner explaining how the "recipient-address" in Bantz discloses a content provider identifier while simultaneously disclosing a user identifier.

Kariya fails to disclose topic identifiers associated with corresponding relative URLs, but instead discloses creating a web page for displaying URL links to other web pages. (*See* Kariya, col. 4, lines 28–42). Amended claim 37 also recites " said profile information including user routing preferences to indicate which **one or more user devices should receive the notifications**" and querying "a messaging service based on the user identifier and based on the presence of a user profile in the user profile store corresponding to the user identifier of the request for additional routing data, said additional routing data indicating an **opt-out status**", while Hill instead *merely* discloses sending status messages to the originator of a group message. (*See* Hill, [0015]). Applicants again submit that Hill, Grube and Horvitz fail to cure the deficiencies of Bantz and Kariya as argued by the Examiner. The combination of cited references therefore fail to disclose each and every element of amended independent claim 32.

In view of the foregoing, Applicants respectfully submit that amended independent claim 32 and its dependent claims 33–36 are allowable for at least the same reasons given. As such, the rejection of claims 32–36 under 35 U.S.C. § 103(a) should be withdrawn.

Claim 6

Dependent claim 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bantz, Grube, Kariya, and further in view of U.S. Pub. No. 2002/0032790 (hereinafter "Linderman"). Applicants respectfully disagree and submit that dependent claim 6 is allowable for at least the same essential reasons given for the allowance of amended independent claim 1, from which claim 6 depends. As such, rejection of dependent claim 6 under 35 U.S.C. § 103(a) should be withdrawn.

Impermissible Hindsight Analysis

Applicants again respectfully submit that the Examiner's combination of cited references amounts to impermissible hindsight. "[T]he question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann MaschinenFabrick GMBH v. American Hoist and Derrick Company*, 730 F.2d 1452, 1462; 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984). As has been shown, the non-analogous disclosures and suggestions of the prior art relate to different fields of endeavor and are directed to entirely different problems. Nothing in the cited references suggests their combination. The Examiner's rejection provides a text book example of impermissible hindsight analysis – the Examiner used the claims as a guide to pick and choose non-analogous references in order to reject the claims. *See In re Oetiker*, 977 F.2d at 1447; 24 U.S.P.Q.2d at 1446 ("There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself."). Therefore, it would not have been obvious to one skilled in the arts of the cited references or the present invention to incorporate disclosures or suggestions from each of the non-analogous references when designing a web-based notifications methods, systems, and computer-readable storage media of the present application.

Conclusion

Applicants submit that the claims are allowable for at least the reasons set forth herein. It is felt that a full and complete response has been made to the Office action and, as such, places the application in condition for allowance. Such allowance is hereby respectfully requested.

Although the art made of record and not relied upon may be considered pertinent to the disclosure, none of these references anticipates or makes obvious the recited aspects of the claims. The fact that Applicants may not have specifically traversed any particular assertion by the Office should not be construed as indicating Applicants' agreement therewith.

Applicants wish to expedite prosecution of this application. If the Examiner deems the application to not be in condition for allowance, the Examiner is invited and encouraged to telephone the undersigned to discuss making an Examiner's amendment to place the application in condition for allowance.

The Commissioner is hereby authorized to charge any deficiency or overpayment of any required fee during the entire pendency of this application to Deposit Account No. 19-1345.

Respectfully submitted,

/Frank R. Agovino/

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